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(71) Applicant: **JOHNS MANVILLE INTERNATIONAL, INC.** [US/US]; 717 Seventeenth Street, Denver, CO 80202 (US).

(72) Inventors: **GROH, Werner**; Nebelhornstrasse 32, 86830 Schwabmünchen (DE). **SCHÖPS, Michael**; Am Ringsee 6, 86845 Grossaitingen (DE). **SEISS, Willi**; In der Strütt 27, 97906 Faulbach (DE). **SCHWARZ, Rolf**; Reichenberger Strasse 43, 97877 Wertheim (DE). **NAGL, Monika**;

Völkstrasse 6, 86150 Augsburg (DE). **GREISER, Wolfgang**; Am Maiers Kreuz 6, 86356 Neusäss (DE). **ZEINER, Michael**; Reichenberger Strasse 161, 97877 Wertheim (DE). **UMMINGER, Jürgen**; Bürgermeister Weid Strasse 7, 97922 Lauda-Königshofen (DE).

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(54) Title: **LAMINATES INCLUDING TWO OR MORE LAYERS OF ORGANIC SYNTHETIC FILAMENT NON-WOVENS AND GLASS WOVEN WEBS AND SCRIMS**

(57) Abstract: In accordance with the invention, a laminate of two or more layers and the method of making it is provided. The laminate includes at least one organic synthetic filament non-woven layer, and at least one woven web or scrim of glass fibers pre-consolidated by a binding agent. The polyester non-wovens and the woven webs or scrims are bound by needling such that a part of the e.g. polyester filaments penetrate through the laminate and emerge at the lower surface of the laminate and lie adjacent thereto. The formed laminate is subjected to a final consolidation by an acrylate or a styrene binder.

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TITLE: Two or three layer laminates of
synthetic non-woven fabric and woven glass fabric or
scrim, for use in bituminized roofing webs and sealing
membranes, in which the layers are bonded by needling and
consolidated with a binder

INVENTOR: GREISER, W; GROH, W ; NAGL, M ; SCHOEPS, M ;
SCHWARZ, R ; SEISS, W
; UMMINGER, J ; ZEINER, M ; GROTH, W ; LEHNERT, J ;
PLOETZ, K

PATENT-ASSIGNEE: JOHNS MANVILLE INT INC[JOHM]

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BASIC-ABSTRACT:

NOVELTY - A laminate of two or more layers comprising an organic synthetic filament (polyester) non-woven layer and a woven web or scrim of glass fiber,

pre- consolidated with a binding agent. The non-woven layer is bonded to the woven layer by needling so that part of the polyester filament penetrate through the laminate and emerge at the lower surface and lie adjacent to it. The formed laminate is consolidated with an acrylate or styrene binder

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the method of producing the laminate which may have two layers or be a sandwich of the woven web between non-woven layers

USE - The laminate is used as a carrier web for bituminous roofing webs and sealing membranes (claimed)

ADVANTAGE - The laminates have improved dimensional stability, resistance to delamination and fires resistance when used in bituminized roofing webs. The production method reduces the formation of glass fragments and dust

ABSTRACTED-PUB-NO: WO 200108879A

EQUIVALENT-ABSTRACTS:

NOVELTY - A laminate of two or more layers comprising an organic synthetic filament (polyester) non-woven layer and a woven web or scrim of glass fiber, pre- consolidated with a binding agent. The non-woven layer is bonded to the woven layer by needling so that part of the polyester filament penetrate through the laminate and emerge at the lower surface and lie adjacent to it. The formed laminate is consolidated with an acrylate or styrene binder

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for the method of producing the laminate which may have two layers or be a sandwich of the woven web between non-woven layers

USE - The laminate is used as a carrier web for bituminous roofing webs and sealing membranes (claimed)

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CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: TWO THREE LAYER LAMINATE SYNTHETIC NON WOVEN FABRIC WOVEN GLASS

FABRIC SCRIM BITUMEN ROOF WEB SEAL MEMBRANE
LAYER BOND NEEDLE
CONSOLIDATE BIND

DERWENT-CLASS: A23 A93 F08 P73 Q45

CPI-CODES: A03-C03; A12-R03; A12-R05; F04-B02;

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D31 D45 D50

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D63 D84 F41

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F41 F89 D58

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D51 D53 D58

D76 D88 ; H0000 ; H0011*R ; P1741 ; P1752
 Polymer Index [1.7]
 018 ; ND01 ; K9676*R ; Q9999 Q7818*R ; ND07 ; B9999
 B5243*R B4740
 ; Q9999 Q6826*R ; Q9999 Q6860 Q6826 ; Q9999 Q6848 Q6826
 ; N9999
 N7192 N7023 ; Q9999 Q7023 Q6995 ; K9892 ; B9999 B3758*R
 B3747 ;
 B9999 B4239 ; N9999 N6042*R
 Polymer Index [1.8]
 018 ; Q9999 Q6791 ; N9999 N7147 N7034 N7023 ; K9483*R ;
 K9518 K9483
 Polymer Index [1.9]
 018 ; G2891 D00 Si 4A ; A999 A419 ; S9999 S1070*R ;
 S9999 S1161*R
 S1070 ; A999 A771 ; A999 A759 ; B9999 B4831*R B4740 ;
 S9999 S1149
 S1070 ; S9999 S1194 S1161 S1070 ; S9999 S1241 S1229
 S1070
 Polymer Index [2.1]
 018 ; P0839*R F41 D01 D63 ; S9999 S1070*R ; S9999 S1183
 S1161 S1070
 ; S9999 S1241 S1229 S1070 ; P0884 P1978 P0839 H0293 F41
 D01 D11
 D10 D19 D18 D31 D50 D63 D90 E21 E00 ; A999 A419 ; A999
 A782
 Polymer Index [2.2]
 018 ; N9999 N6177*R ; N9999 N6951 ; N9999 N6008*R ;
 N9999 N6020
 N6008 ; N9999 N6939*R ; N9999 N6940 N6939
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 018 ; G3601*R P0599 D01
 Polymer Index [3.2]
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 ; Q9999 Q6826*R ; Q9999 Q6860 Q6826 ; Q9999 Q6848 Q6826
 ; N9999
 N7192 N7023 ; Q9999 Q7023 Q6995 ; K9892 ; B9999 B3758*R
 B3747 ;
 B9999 B4239 ; N9999 N6042*R
 Polymer Index [3.3]
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